

**REMARKS**

This Response, submitted in reply to the Office Action dated February 27, 2007, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claims 1-10 are all the claims pending in the application.

**I. Claim Rejections under 35 U.S.C. § 102**

Claims 1-3, 5, 7 and 10 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Reusens et al. (U.S. Patent No. 6,351,473).

Reusens is directed to a method for allocating data bits between a multi-carrier transmitter and receiver. A multicarrier transmission system in which a transmitter sends digital data packets modulated on a set of carriers to a receiver. A subset of the carriers has frequencies in a predetermined frequency range which have a high risk of being affected by narrowbanded interference. The data bits of the digital data packets that are allocated to the subset of carrier having frequencies within these predetermined frequency ranges are allocated to in a redundant way. The receiver is capable of measuring the amount of narrowbanded interference that affects each carrier within the subset of the carriers that may be affected and can re-combine data bits allocated to carriers in the subset which carry redundant data bits, so that interference immunity is improved. See Abstract.

However, there is absolutely no teaching or suggestion that carriers are grouped in subsets and to produce for at least one respective subset a limited set of parameter values from

which constellations of each carrier in said at least one respective subset can be derived through interpolation.

The Examiner asserts that frequencies  $f_1$  and  $f_3$  are in one subset and frequencies  $f_2$  and  $f_4$  are in a second subset which the Examiner asserts teaches the claimed grouping carriers in subsets. Therefore, it appears that the Examiner is citing the combination of subset  $f_1/f_3$  and subset  $f_2/f_4$  for teaching a claimed carrier. The Examiner then goes on to say that the bit allocation values, transmitted energy levels or gain and carrier identification information teach the claimed parameter values. However, at no point are constellations for each carrier ( $f_1$ ,  $f_2$ ,  $f_3$ ,  $f_4$  as asserted by the Examiner) derived through interpolation. Most likely because Reusens is not at all concerned with the derivation of carrier constellation information through interpolation, but is directed to the redundancy of data bits so as to prevent narrowband interference.

The aspects of Reusens cited by the Examiner, col. 10, lines 1-67 and col. 8, lines 11-24, disclose the components of a receiver R' which include a line interface, a digital converter, a demodulator and a bit de-allocation means. Further, Reusens discloses the interpretation of allocation messages by the receiver R' to determine the transmission levels of frequencies. Further, via the allocation messages, a receiver R' knows which part of data bits are transmitted twice.

However, at no point are constellations of each carrier in said at least one respective subset derived through interpolation. Further, at no point are the bit allocation values, transmitted energy levels or gain and carrier identification information, which the Examiner asserts teaches the claimed parameter values, used to derive constellation information of each carrier in a subset.

For at least the above reasons, claim 1 and its dependent claims should be deemed allowable. To the extent claim 7 recites similar elements, claim 7 and its dependent claims should be deemed allowable for at least the same reasons.

## **II. Claim Rejections under 35 U.S.C. § 103**

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over admitted prior art and Reusens as applied to claim 7, and further in view of Gultekin et al. (U.S. Patent No. 6,215,793; hereinafter "Gultekin"). Claim 10 should be deemed allowable by virtue of its dependency to claim 7 for at least the reasons set forth above. Moreover, Gultekin does not cure the deficiencies of Reusens.

## **III. Allowable Subject Matter**

The Examiner has indicated that claims 4, 6, 8 and 9 contain allowable subject matter and would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. At the present time, Applicant has not rewritten claims 4, 6, 8 and 9 in independent form since Applicant believes claims 4, 6, 8 and 9 will be deemed allowable by virtue of their dependency to claims 1 and 7 for at least the reasons set forth above.

## **IV. Conclusion**

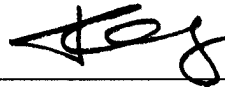
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

RESPONSE UNDER 37 C.F.R. § 1.111  
U.S. Appln. No. 09/767,850

**Attorney Docket No. Q62670**

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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